Speed Trap User Manual
Version 1.10

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Introduction

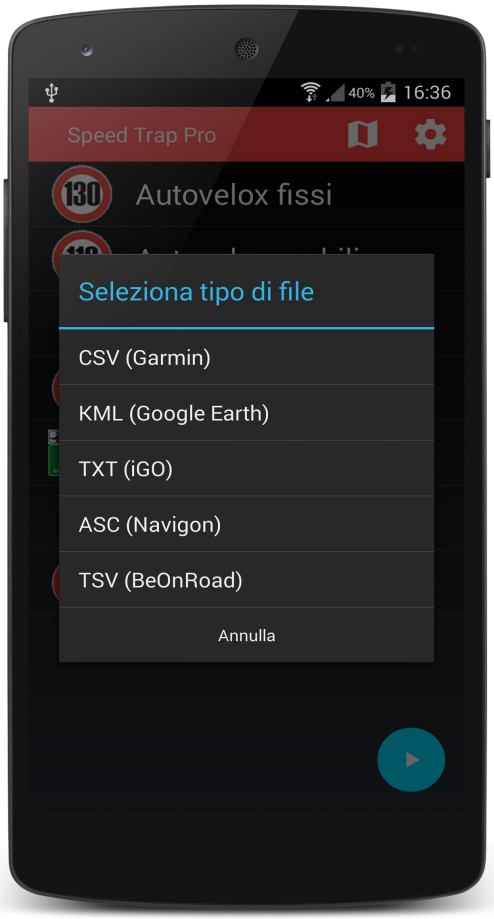
Speed Trap is the Android app designed to warn you about the presence of speed cameras, overtaking checkers and mean speed checkers. It has been designed to work with other navigation software like Google Navigator with a minimal user interface. There is a free version without any ads. It provides vocal and sound advice with range indication and "ceased alert". The import is done via file so you can update the "poi" list at whatever time and you can modify it adding or removing points. It does not need any extra authorization. The search of points is done via angular sectors. You can configure: fixed and mobile speed camera, overtaking checkers, red lights, mean speed checkers and speed boxes. It gives the indication of database items loaded and last update date/time. It works offline. It can turn on your screen only when real needed to save your battery. You can start automatically an app according to your preferences, for example your preferred navigation app. You can load the files via cloud. With the pro version you can use the map editor to add/remove points, no traffic zones, advice with vibration, file concatenation, activation widget from home and lock screen, auto start/stop with bluetooth, integration with Locale/Tasker/AutomateIt/Atooma and vocal assistant as Google Now and much more!

First steps

Speed Trap has not got any kind of default database. The first operation to do is the import of the point of interest information. The import is done via file. Once the import is terminated, you can delete the files used.

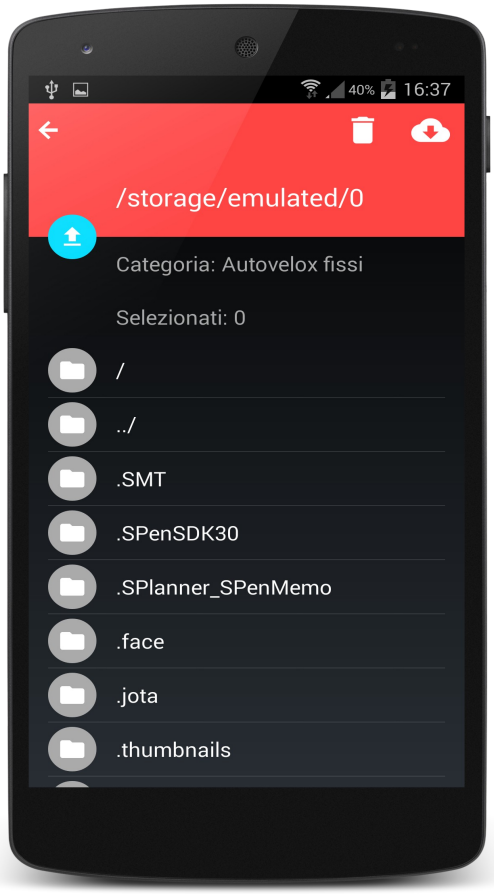
Step 1

To import a file, touch the name of one category and select the file type.



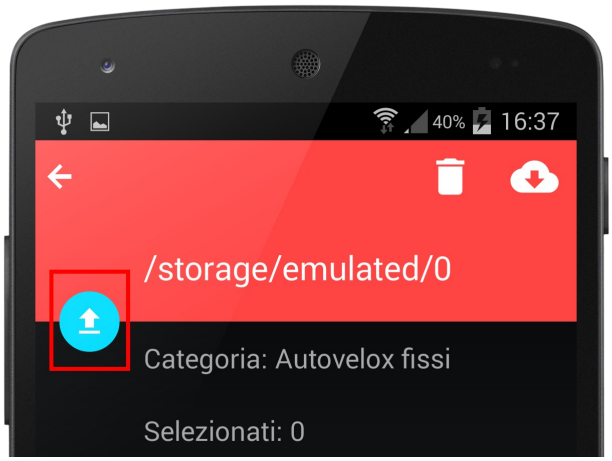
Step 2

Select the file to import.



Step 2.1 (Only PRO)

Click on *Load* button (in red in the following figure)



Step 3

Run the app with the *Play* button. Into the status bar the Speed Trap icon will be shown to warn the user that the app is up and running.

Step 4

When you want to close the app you have to click again on *Play* button. Into the status bar the Speed Trap icon will be removed.

Note: It'd be better to close the app when it is no more needed to avoid battery drain.

Database management

The user can import the files in three different ways:

- The files are downloaded from an external source on the phone via browser;
- The files are downloaded from an external source on a PC and transferred on the phone for

example via USB;

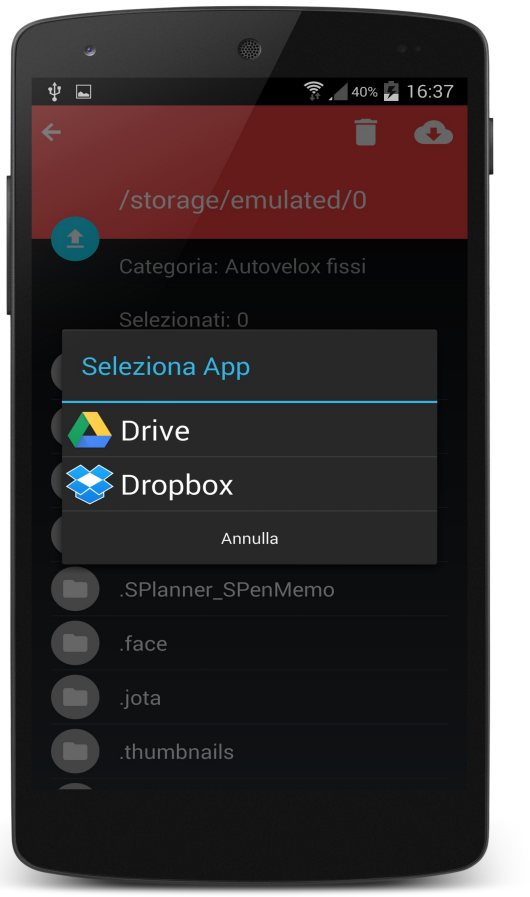
- The files are downloaded from an external source on a PC and transferred on the phone via Cloud Storage. The services supported are: Google Drive, Dropbox, SugarSync, Box, OneDrive, Copy and OwnCloud.

When an import of new data is done, the old data for that category are erased by the app and the last update date is updated. The deletion is done only if the files to be imported are well formatted according to the format selected.

PRO: PRO users can create custom points with the map editor. These points are called “PRIVATE” points. When you import a new file, the PRIVATE points are not deleted to avoid to reload each time your preferred points. See the paragraph “Erase all data” to have more information about that.

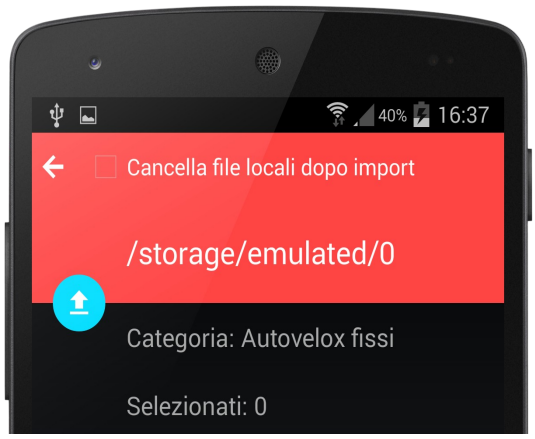
Import from Cloud

To import files from Cloud you can follow the descriptions in the paragraph “First steps”.At *Step 2,* you have to click on the action bar *Cloud* button (in red in the next figure). The app asks you which Cloud application you want to use, Google Drive or Dropbox in the example in the following figure.



File deletion after import (ONLY PRO)

PRO users can automatically delete the files imported. To do that, the user has to click onto the *Bin* button (see *Step 2* of the paragraph "First Steps") and check the deletion option shown in the action bar as shown in the next figure. Select this option, if you want, before to click onto the *Load* button.



Only local files (files saved on the phone) can be automatically deleted by Speed Trap.

Automatic merge (ONLY PRO)

PRO users can select more than one file. All the information will be merged automatically by Speed Trap for that category. The import is done when the user click onto the *Load* button.

PRO users can select more than one file on cloud storage starting from Android 4.3, but some apps currently doesn't support this kind of operation, so you have to send a support request to your cloud storage provider.

Erase all data

LITE: LITE users can erase all data only via Android menù: Settings->Application Manager (or Apps)->Speed Trap->Clear data.

PRO: PRO users can selectively delete each category data with a long click on the category name and selecting the *Delete* button (in red in the following figure). The app will ask you a confirmation. In this way even the “PRIVATE” points created by the user with the map editor will be erased.

Show stat

To show the stat for a category, you have to do a long click on the category.

PRO: PRO users, in addition, have to click onto the *Stat* button as shown in the following figure.

Data export (ONLY PRO)

PRO users can export the database content for each category to share the information with other users or to a backup. The export contains even the “PRIVATE” points. If you import again the file exported all points for that category will be restored. The restore includes the status of “PRIVATE” points, i.e. their status is preserved across export and import operation.

Options

Speed

Enable speed check

Usually the warning is provided by the app if you are near a specific point (fixed speed camera, mobile speed camera and so on). If this option is enabled, the app will check even your speed provided by GPS and comparing that value with database speed limit information plus a threshold (see speed tolerance). Only if your speed is greater than the limit you will receive the warning.

Example: I've got a speed of 40km/h and the limit is 50km/h, in this case I won't receive any kind of warning.

Speed tolerance

The speed tolerance is a value used to increment the speed limit in the database, default value is 5%: if the limit is 50km/h, the compare threshold will be 52,5km/h, i.e. if I've got a speed greater than 52,5km/h I'll receive a warning.

Unit of measure

Unit of measure for the speed: km/h o mph.

General options

Turn on screen

To avoid to drain your battery Speed Trap allows the phone to turn off the screen. To receive visual warning, however, you can enable this option. In this way Speed Trap will turn on the screen when needed. The screen will be turned off according to the timeout set in your Android settings.

Sound advice

Speed Trap can give you a warning with a sound or using the voice. It's possible even to disable completely the sound warning. To customize the sounds see “Customization”.

When sound is used, Speed Trap repeats the sound to let you know the distance from the point. If you set 1000 meters as main distance, Speed Trap will use the sound one time when the point is detected between 1000 and 500 meters, two times when it is detected between 500 and 250 meters and three times when it is detected between 250 and 0 meters. If you set 500 meters as main distance, Speed Trap will use the sound one time when the point is detected between 500 and 250 meters and two times when the point is detected between 250 and 0 meters. The sound is used only one time if the main distance is 250 meters.

Visual advice

Usually the app provides you a visual advice with a transient pop-up message. With this option you can modify this behavior to either avoid the pop-up message or receive a notification. The use of a notification can be really worth if you use Android Wear. In this case the notification is mirrored on your smart-watch. If you are using Android 5.0 or above, notifications are presented with the heads-up style.

Audio focus

With this option is possible to decide how Speed Trap works with other apps from sound point of view. In the *Standard* mode the warning can interrupt other sounds. At the end of the interruption the previous audio can play again. With the *Mixed* mode, Speed Trap allows others sounds to decrease their volume. In this way, for example, you can listen to your music with any interruption, when a warning is provided, the music volume will be decreased and increased again at the end of the warning.

Note: Speed Trap does not provide any sounds during a call.

Vibration (ONLY PRO)

PRO users can use the vibration as warning mode. This kind of mode is fully customizable in terms of time and number of vibration. The app allows you for alarm and ceased alarm, the number of vibration repetition, the vibration length and the length of silence among the vibrations. In this way you can create custom vibration pattern.

Automatic silence

When this option is enabled, Speed Trap listens to status change of your phone. If the user change the ring-tone mode using the vibration mode or silence mode, while Speed Trap is running, the app won't give any sound warning any mode. The app will give only visual/vibration warning.

HUD Mode (ONLY PRO)

When this option is enabled, each visual warning is rotated by 180 degree. In this way you can put your phone under your windshield and see the warning on the glass.

Warning about GPS status

When this option is enabled, Speed Trap can provide a warning about the GPS status, for example if the GPS is currently off, or GPS is currently not available. In the last case a new warning will be provided when the GPS will be available again.

Note: The warnings are NOT provided if the change in the GPS status is done by the user. In addition, the app won't provide a warning if the GPS is not available only temporarily, for example you are in a tunnel.

Auto-shutdown

It's possible to set a shutdown timeout. When the timer expires the app close itself automatically. The timer starts when the GPS is no more available. The GPS is no more available when it is turned off but even when there isn't more satellite signal.

Open app when started

Speed Trap can start another app when is starting, for example your preferred navigation app.

Alarms options

Activation

Each category can selectively activated. If a category is deactivated the app won't give any warning related to that category.

Distance

Max distance to receive a warning: 250 meters, 500 meters, 1000 meters.

Sector search angle

Speed Trap is not a navigation app, it does not use any kind of map. To avoid to give you warning for points that are not on your road, it use a sector search centered on your travel direction. The width of this sector is expressed in degree. If you have wrong warning, i.e. warning for points on other roads, you can try to tune this parameter decreasing its value.

Ceased alarm

When a point is no more near you and it's no more reachable, the app give you a ceased alarm. You can decide to receive this kind of warning enabling/disabling this option.

Max speed

Only for the mean speed checkers category it's possible to set a maximum speed. The app shall give you a warning only if the speed is greater than your car speed. This option is enabled only if the speed check option is enabled (see the option *Enable speed check*). To the speed set is applied the tollerance, example: tollerance of 5%, max speed of 130Km/h. The app shall give you a warning if the speed is greater than 136,5Km/h.

Note: The app does not work out the average speed.

Map options (ONLY PRO)

Max refresh time interval

The points on the map are calculated with the map center. When the user wants to move on the map, all points must be calculated again. However, this happens only if the difference time among the last refresh time and the current time is greater than this parameter.

Max number of poi on the map

Max number of poi displayed on the map.

Map mode

If the map mode is active, when the app is started with the *Play* button, the app is going to open the map and keep the screen on. When this mode is active, the selected app by the user (see “Open app when started”) won't be started, so this option is mutually exclusive with that setting.

Bluetooth (ONLY PRO)

Automatic start/stop

If this option is enabled, Speed Trap will be started and terminated automatically when the selected bluetooth device is connected or disconnected.

Device address

MAC address of the selected device.

Auto detection

If you don't know the MAC address, you can select this option to have a list of devices. Before to use this option, turn on your bluetooth.

Audio via BT headset

If this option is turned on any warning are played over Bluetooth channel if a device is connected.

Import/Export settings (ONLY PRO)

It's possible to do a complete settings backup via export button. In addition it's possible to import the file created via the import button. Only the settings are going to be exported, to export points see the paragraph *Data Export*.

Map Editor (ONLY PRO)

With the map editor is possible modify the database and see where the points are located. The operation allowed are:

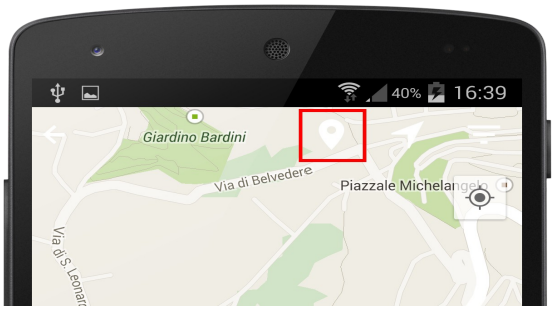
- Creation of a new point
- Modification of a point
- Deletion of a point
- See the point with Street View
- Filtering

Creation of a point

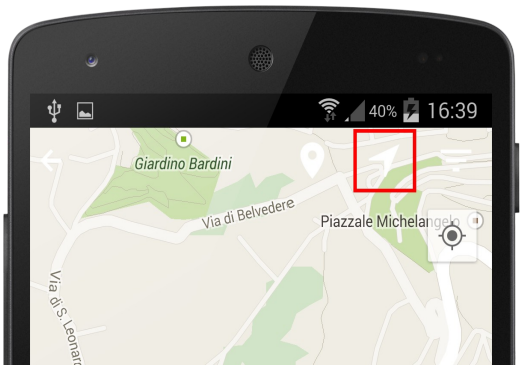
The creation of a point can be done in three different way:

- Manual insertion of coordinates;
- Using the last known GPS position;
- Long click on a map point.

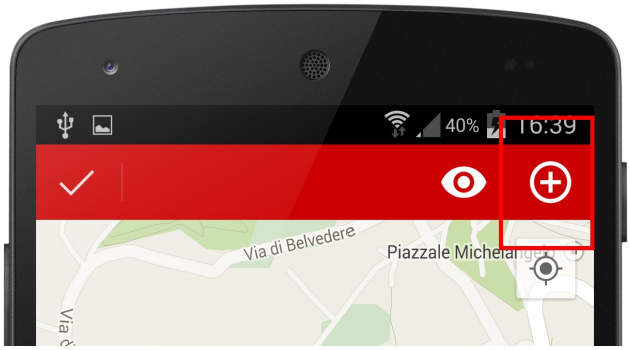
To insert the coordinates, click on the action bar button (in red in the following figure), writing the coordinates separated by a comma and then click Enter.



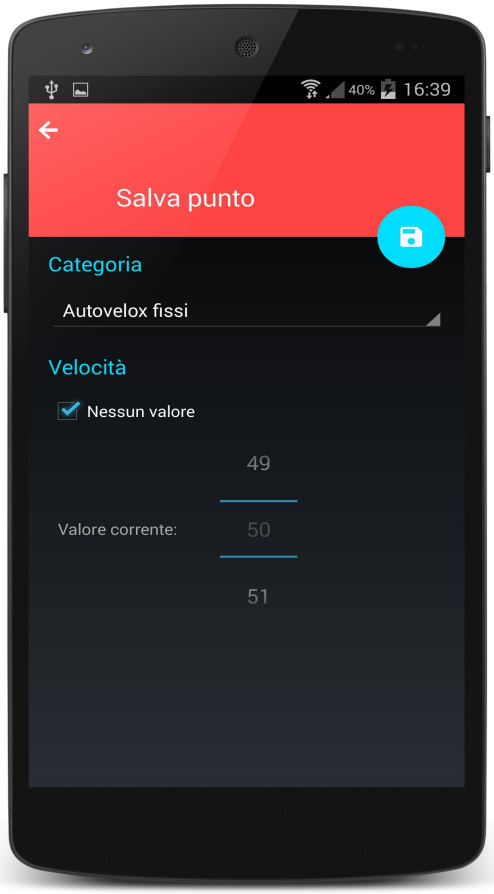
To use the GPS, click on the action bar button (in red in the following figure). In order to use the GPS, it must be enabled and it must be received at least one position.



With a long click on the map, the action bar change its status, and you can see two new options. To save a new point click on the *Add* button (in red in the following figure).



With all the three mode, the user will see a new menu, as in the following figure, to insert other information like the category and the speed limit (if applicable). When ready, click on the *Save*.button.



All points created in this way are defined “PRIVATE” points.

Modification of a point

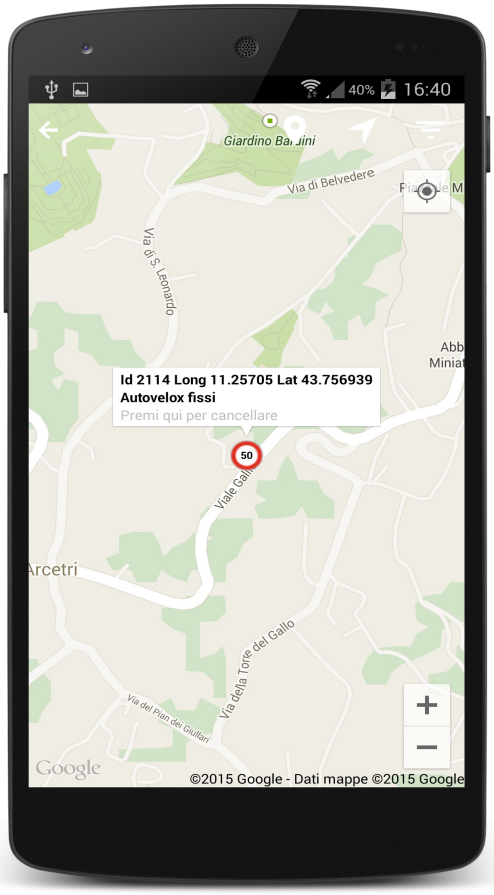
To modify a point, you can follow this procedure:

- Select the point to modify, the info window of that point will be shown;
- Click on the button for manual insertion of coordinates, copy the coordinates from the info window. Be careful to avoid to hide the info window with the keyboard;
- Click on the info window to delete the point, letting the keyboard open;
- Press Enter to save the point.

The point is now “PRIVATE”.

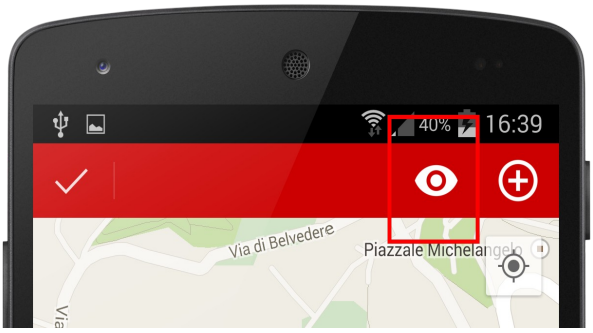
Deletion of a point

To delete a point, click on the point and then click on the info window.



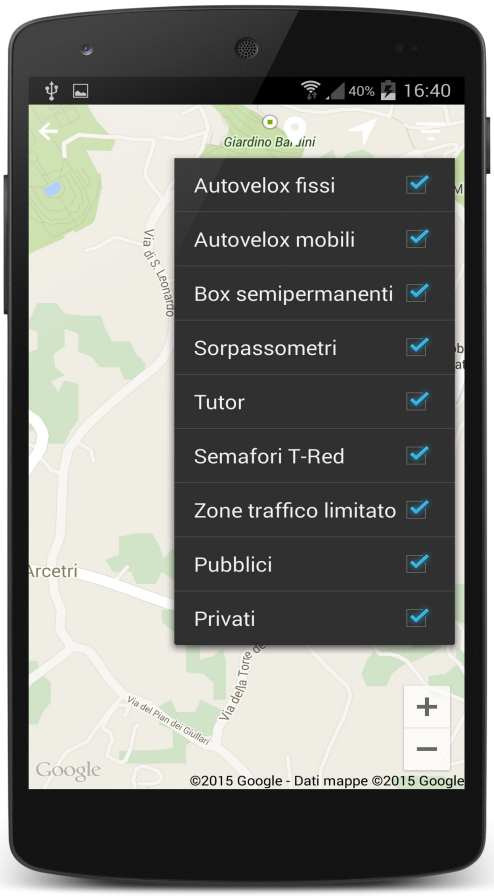
See the point with StreetView

It's possible to use StreetView to “see” a point “virtually” on the road. To use Street View directly from Speed Trap, you have to do a long click on a point and then select the *StreetView* button (in red in the following figure).



Filtering

All category can be filtered out on the map. The filtering can be based either on the category (fixed, mobile, ...) or on the nature PUBLIC/PRIVATE of the points, or a combination.



Vocal activation (ONLY PRO)

Speed Trap can be enabled/disabled with the voice. To do that, you need the plug *Speed Trap Voice*. This plug can be used with vocal assistant as Google Now/Svoice/Jarvis e and much more. Open your assistant and tell him “Open Speed Trap Voice” Speed Trap will be started if not running or stopped otherwise.

Wearable devices (ONLY PRO)

The application supports Android Wear. Through your smartwatch you can select a category to quickly add a new point. To allow tha app to work the GPS on your phone must be enabled with at least one fix gotten. If your smartwatch has got a GPS sensor the positional information are obtained from the smartwatch, but even in this case, the GPS sensor must be enabled.

When you tap on a category the app will show you a waiting screen and than you'll see the result of the operation.

Widget activation (ONLY PRO)

Speed Trap can be enabled/disabled with a widget .The widget provided can be found in the widget section of the user laucher app. The widget can be used on the home screen or on the lock screen. The widget allows to enable Speed Trap if not running or to stop it otherwise.

Customization

Sounds

The sounds used by Speed Trap can be fully customized. Connect your phone to your pc and create the folder (if they don't exist yet) “Notifications” and “Ringtones” on your phone. Put on them the sound for ceased alarm (Notifications folder) and the sounds for all other alarms (Ringtones folder). After this operation, open Speed Trap and select your sounds.

Voice and actions (ONLY PRO)

Speed Trap supports several plugins to use other apps like:

- Auto Speed Trap for Tasker
- Automate Speed Trap for AutomateIt
- Speed Trap for Atooma for Atooma

Each plug has got a set of features because they depend on the host application. In general the plugs

allows to enable/disable Speed Trap when an events is triggered and allows to catch the event of alarm and ceased alarm to do some actions. The combination of events/actions is really huge and their type depends on the possibilities provided by the host application as said. Just a short list of some example:

- Send a notification to my smartwatch when an alarm is raised;
- Change volume when an alarm is raised;
- Enable Speed Trap when I'm in my car (detection via NFC/Bluetooth);
- Change voice alarm using different information, for example tell me the speed limit or change distance information using different unit of measures, for example yards;
- Change the display brightness when an alarm is raised;
- Use a different TTS engine for voice alarm;
- Keep always screen on when Speed Trap is running;
- Turn off Speed Trap when I'm connected to a specific wifi;
- Open a specific app when an alarm is raised;

….and really much more, the limit is only our imagination.

Files formats

Speed Trap accept several formats. Here the specification about each format:

File CSV:
longitude,latitude,name @speed

File KML:

A kml file where each node name is in the format: name-speed or only speed. The node contents must be in the format longitude,latitude,altitude or longitude,latitude.

File TXT:
longitude,latitude,type,speed,dirtype,direction

File ASC:
longitude,latitude,name-speed,description